TIME CODE	AUDIO	VISUAL
10:00:00	"The Edge" TITLE SEQUENCE	
10:00:22	For 20 years there has been a killer living amongst us.	Montage of people wearing red ribbons on Oxford Street.
	Already its victims are in the tens of millions and counting.	3
	It doesn't discriminate between colour, race or creed, between young, old, rich or poor.	
	Yet most of us think we are not in danger.	
	This programme looks at the origins of AIDS, from transmission and symptoms, to awareness and how British scientists are working with scientists from around the world to find an effective long term treatment.	
10:01:10	According to the United Nations there is an estimated 40 million people living with HIV in the world today.	AIDS MAP. As you click from country to country, statistics come up.
	Sub-Saharan Africa accounts for 70% of all infections. Added to this large number are the increasing prevalence rates amongst pregnant women.	Africa lights up with 70%.
10:01:30 Emelia Timpo Ethiopia Country Programme Manager UNAIDS	'I think it took up until last year for people to begin to see people actually dying, because I think they perceived that it was something that was happening elsewhere and not here'	Emelia Timpo, UNAIDS
10:01:44 Dr Eduard Sanders Expatriate Programme Manager Ethio-Netherlands AIDS Research Project	'I think the unique think of the HIV epidemic is that people have come to realize that it is not an African problem only, it is a world problem'	Dr. Eduardo Sanders, ENARP
10:01:51	Although Western Europe accounts for only a fraction of the worlds HIV sufferers, this year there are alarmingly large increases in the United Kingdom, Spain and Portugal.	Western Europe lights up with 1.5%
10:02:04 Colin Dixon Director of National Services Terrence Higgins Trust (UK)	'In the recent figures that come up we saw a 17% increase in figures from last year to this year, and the majority of these infections were amongst heterosexual people.'	Colin Dixon
10:02:14	Eastern Europe and Central Asia, accounts for 2.5% of the epidemic. This is now the largest growth area, with Russia experiencing a 1000%	Eastern Europe and Central Asia (Russia, Ukraine, Estonia etc.) lights up with

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	increase of reported cases in the last three years.	2.5%.	
10:02:29	'In some countries, particularly in Eastern Europe, what we're seeing is an epidemic growing up around injecting drug use. So it does vary from place to place.'	Colin Dixon	
10:02:37	7% of infections are in the Americas, with most found in South America. North America has had relative success in keeping the numbers down. Recently, however, there have been large increases amongst women and homosexuals.	North America, Caribbean and Latin America light up with 7%	
10:02:53	'I think it's a very big deal, but we don't always think about it, we don't always see it all the time, we don't know who has it, so, it's not something that is in the news everyday.'	Female American from Ohio VOX POP	
10:03:07	Yet despite it being a global problem, stigma and ignorance continues to surround HIV and AIDS.		
	This, in turn, is making the epidemic even greater.		
10:03:19	'I definitely expect it to get worse before it gets better'	Emelia Timpo	
10:03:24	'HIV is a virus, the Human Immunodeficiency Virus, it's a virus which is spread sexually, by blood products, sharing needles and also vertically from mother to child. Once the infection gets you in the body it stays with you for the rest of your life.'	Dr. Mark Nelson	
10:03:43	But what is the origin of this world killer?		
	The oldest evidence of HIV infection dates from 1959 and was found in stored African blood samples.	slides with old blood on them	
	HIV is thought to have been carried from Africa to Europe, the Caribbean and the USA, via guest workers and tourists during the 1960s.	super 8 footage from US, Caribbean and Europe	
10:04:08	The first known case of AIDS, identified later from stored blood samples, was found in the USA in 1969.	More slides and medical notes	
	A Danish surgeon, contracted Pneumocystis Carinii Pneumonia while working in the Democratic Republic of Congo. She returned to Denmark and died in September 1977 and was later recognized as Europe's first case of AIDS	Close-up of doctor's tools – stethoscope etc. surgeons paraphernalia	
10:04:36	In July 1981, the New York Times reported an outbreak of a rare form of cancer among gay men in New York and California.	Newspaper cutting San Francisco Footage	
10:04:47 Dr Lawrence Altman Medical Correspondent The New York Times	'I've covered AIDS for more than 20 years. I wrote one of the very first stories about AIDS, which did'nt have a name at the time. It was a story about forty one gay men who had a type of cancer called Kaposi's Sarcoma; that was a rare cancer at that time and it appeared suddenly in New York particularly in gay men and nobody understood why or why this group	Dr. Larry Altman, New York Times Exterior of New York Times Building	

	and affected and other items a comming at this time?	Liberty and Manhattan CVa
	was affected and why it was occurring at this time.'	Liberty and Manhattan GVs.
10:05:32	'Nobody knew what to make of it at the time because	Ambulance lights in black
	there were a relatively small number of cases. It was	and white.
	scary from the point of view that something new was	A&E signs.
	happening and nobody could understand it. It didn't	
	seem like a threat to the entire world or country at the	Dr. Larry Altman
	time.'	
10:05:51	In 1982 the Centre for Disease Control linked the	AIDS Tranny
	illness to blood and coined the term AIDS standing	
	for Acquired Immune Deficiency Syndrome.	
10:06:03	A year later a detailed description of HIV, the virus	Pasteur Institute
10.00.03	that causes AIDS, was made by Dr Luc Montagnier	AIDS Tranny
	of the Pasteur Institute and Dr Robert Gallo of the	Dr Robert Gallo
	National Cancer Institute.	HIV-AIDS tranny
10:06:28	Humans, as with all animals, have a basic need to	Real life female model,
	mate. Unlike most other animals however, we also	sitting at a bar, a man starts
	have sex for pleasure rather than just for	chatting her up.
	reproduction.	
10:06:43	Blood is an essential part of our bodies. It travels	
	via a highly efficient transport service provided by	Freeze on woman showing
	blood vessels and powered by the heart.	blood vessels and heart.
10:06:54	Our blood contains numerous red cells which carry	
	oxygen and fewer white cells which defend the body	Animaton shot of Red &
	from infection. In addition, they clean up the body	white blood cells.
	by eating everything that is in the wrong place, like	Close-up of white cell
	dead cells.	eating dead cell.
10:07:12	The surface of internal parts of the body that have	Live action - Female model
	contact with food, like the mouth and guts, is lined by a soft red damp layer called the mucous	flirts back by touching his hand She laughs, opening
	membrane. It is also found in the vagina and anus.	her mouth to show the inner
	membrane. It is also found in the vagina and ands.	mucous membrane.
10:07:29	This layer is much more delicate than skin and can	Zoom into mouth, showing
	be damaged easily.	the mucous membrane then
		turn into animation.
	If there is a break in the mucous membrane blood	CI C I
	flow to the area increases, this in turn increases the	Close-up of the mucous
	number of white blood cells at the site, rushing to eat up any germs and foreign matter 'causing	membrane with a slight inflammation.
	inflammation.	iiiiaiiiiiatioii.
10.07.50	Sanadyone of white blood calls arrive at the	Mony managet
10:07:50	Squadrons of white blood cells arrive at the scene and surround the intruders.	Many macrophages surrounding the area and
	and surround the induders.	digesting stray intruders and
	When the HIV virus is present, the white blood cells	swallowing the foreign,
	unwittingly play right into its hands, as they are the	random particles.
	very cells that it is targeting.	
		HIV viruses ominously
		come into the picture.

10:08:08	The outside lever of the HIV virus centains a special	Class up on a singular IIIV
10.08.08	The outside layer of the HIV virus contains a special protein that will bind onto waiting receptors found	-Close-up on a singular HIV heading towards a
	on the white blood cell.	macrophage.(Macrophages
	on the white blood cen.	seem gigantic in
		comparison.)
		-HIV making its way then
		impaling itself on a
		macrophage.
10:08:19	Once attached, the HIV virus empties itself into the	- Close-up of one HIV
	cell's body. It wastes no time instructing it to	attached to a macrophage.
	produce new HIV viruses.	The virus is absorbed into
		the cell. We see passage of
10.00.00	Now the white blood cell has been hijacked.	'material' into the nucleus.
10:08:38	It takes less than a day before the newly infected	Viruses begin to bud from
	white blood cells begin to mass-produce new HIV.	the macrophage. The first
	E 1 C 4 1 H 'H 1 41 1 CHIV	HIV leaves the cell.
	Each infected cell will produce thousands of HIV before dying.	Zoom out to see hundreds
	before dying.	and hundreds of cells
10:08:58	It will take between 6 weeks and 3 months of	producing HIV.
10.00.30	contracting the virus before antibodies can be	
	detected on HIV tests.	
10:09:08	Within a couple of months, if untreated, a thousand	Return to live action
	billion new HIV may be produced each day. A	
	person is said to have AIDS when their immune	
	system has finally been overcome.	
	But on the surface, everything may seem	
10.00.22	deceptively fine.	D. M. I.W.I.
10:09:32 Dr Mark Nelson	'Clinically, when someone is infected with HIV, initially nothing happens. It's like any disease, once	Dr. Mark Nelson
Consultant Physician	you catch it; it takes a while for the body to react. Once	
in HIV	the infection gets you in the body it stays for the rest of	
Chelsea &	your life. It swims around causing problems with the	
Westminster Hospital	immune system and actually attacking the CD4 cells,	
(UK)	cells that bare a specific receptor called CD4 which	
` '	are basically needed for the immune system to work	
	properly. And as the CD4 count falls, which may take	
	many years, then the individual is more likely to	
	develop infections and tumors.'	
10.10.06	1.750/ 6 1 1 11 1	
10:10:06	In around 75% of people they will develop a seera	Dr. Mark Nelson
	conversion illness. That when the immune system starts to fight the HIV and at that time the patient may	
	become unwell. They tend to get flu like symptoms may	
	develop a skin rash, feel generally unwell, but it's a	
	very severe flu. Its an important time because treatment	
	during this time may actually prevent,, not prevent, but	
	slow destruction of the immune system in the future'	
10:10:33	People who are infected with HIV do not truly die of	Professor Frances Gotch
Professor Frances M	HIV infection they die of opportunistic diseases like	-,
Gotch	tuberculosis, neumacystis, other kinds of devastating	
Head of Immunology	diseases sometimes with tumours, and they die of those	
Imperial College	diseases because they have become immuno-	
(UK)	suppressed because their immune systems are no longer working very well at all so other bugs and	
	tumours and so forth can take hold and kill.'	
10:11:15	Other than abstinence, using condoms during sex	Condoms displayed
	remains the safest way of avoiding infection of any	
	remains the satest way of avoiding infection of any	

	sexually transmitted disease. But this simple fact is not always getting through.	
10:11:30 Professor Fred Valentine Director of the Centre for AIDS Research New York, Univesity School of Medecine	'You have to sell prevention like you're selling cocacola. You can't just inform people, you have to hit them over the head with it and continue to remind them.'	Professor Fred Valentine, Bellevue Hospital
10:11:41	'What we're seeing is a rise in all sexually transmitted infections amongst heterosexual people and that means that HIV infection is also going to be taking place. If someone's going to have penetrative sex, the only way to stop HIV passing from one person to another is to have a barrier in the way in between and a condom is the most effective way of doing that.'	Colin Dixon Condom/safe sex posters
10:12:04	'We should be able to convince people how not to get infected because we know that, this is not a mysterious disease. We know how it is transmitted. We know how not to get infected. What could be simpler?	Professor Fred Valentine, Bellevue Hospital
10:12:17	The advances in anti-retroviral therapy have given some young people, the sense that AIDS is not as serious as it was twenty years ago. Many people have mistakenly seen the advances in medical treatment as tantamount to a cure'	

10:12:39	In hospitals and research laboratories in Britain and around the world, work has been underway to find the best treatments for this growing epidemic. Now, almost 20 years after the science world took up the HIV battle, much ground has been made.	
10:12:56	'15 years ago I'd be attending funerals probably at lease once or twice a month. What I'm seeing now is that I'm actually supporting friends to live with HIV. So that experience has changed.'	Colin Dixon
10:13:08	Many believe that the new drugs are a cure. They are not. They may be working, but at a cost.	
10:13:15	'We know, we have drugs. They're not perfect drugs, they're highly toxic, or they can be highly toxic – they're difficult to take.'	Professor Francis Gotch
10:13:25	'The problem with only giving one drug is resistance. The virus is very clever at changing so the drugs don't work. So if you give just one drug, it's very easy for the virus to make the changes necessary. If you give three drugs its very difficult to make all the changes necessary for all the drugs to stop working.'	Dr. Mark Nelson
10:13:44	'I think people tend to think these drugs are sort of like taking an aspirin everyday, very simple and everybody will get better. Of course this was not the case. These are difficult drugs to take, they are very expensive and do have quite nasty side effects in many cases'	Professor Frances Gotch
10:14:02	'Nucleosides can be associated with anemia, peripheral neuropaphy. which is loss of feeling in the feet. Non-nucleosides are associated with hepatitis, inflammation of the liver and also with neurological side effects such as very vivid dreams and perhaps a little anxiety. Protease inhibitors cause diarrhea, kidney stones, and nausea. All the drugs together have also been associated with changes in fat distribution, thin arms, thin legs, thin faces, and large abdomen. And also with high rates of raised cholesterol, raised triglycerides in the blood. These aren't nice drugs, noone would choose to take them if they didn't have to, but they do save lives.'	Dr. Mark Nelson
10:14:49	But drugs are not an option in many parts of the world as developing countries are struggling to supply affordable HIV medication.	
10:14:58	'We need a global initiative, obviously to bring these drugs to as people who are already infected with HIV as quickly as possible.'	Professor Francis Gotch
10:15:05	'You have a situation where the annual GDP is \$100 per capita, you definitely cannot afford it, so what you have now is most of the people who are using antiretroviral are getting it from relations who are working outside and then they are bringing it in combinations that are not necessarily good and you don't have trained physicians to monitor'	Emelia Timpo

10:15:38	British scientist Professor Andrew McMicheal is Head of the Oxford AIDS vaccine initiative and is at the forefront of vaccine research.	
10:15:49 Dr Andrew McMichael Head of Oxfoed AIDS Vaccine Initiative Oxford University (UK)	I've been doing this research for about 25 years before AIDS was ever heard of, before HIV was ever heard of or noticed clinically. There is I think a swell of research coming towards trying to use the immune response as well as drugs. So in other words to mix vaccines and drugs in some way to treat people.	Professor Andrew McMichael
10:16:12	Well a cure is probably a bit far out but a long term control of the infection without drugs is a realistic aim. I say that because we are all infected with certain viruses that we control without those viruses causing us harm. There's a virus called Epstein Barr virus which is the cause of mononucleosis or glandular fever it also causes some cancers actually That something like 90% of the Adult population in this country are infected with and once the initial infection is brought under control we're fine. We have that virus on board but we have a strong immune response for life that controls the infection. So if we could get to that situation for HIV I think we more or less have cracked the problem. But the vaccines we've all received for measles and mumps and small pox if we're that old, they are designed to stimulate anti-bodies. Which are small proteins which stick on to the virus and they prevent the virus from infecting cells. This approach which has been so successful for other viruses is not working for HIV. It's not been possible to stimulate that kind of anti-body with a vaccine. So we're looking at an alternative route which is to stimulate what we call Killer T cells, and these are the cells in the blood that normally get rid of virus infections. And so the idea is we have these waiting when the virus invades and they will then get rid of the virus before it really establishes an infection.'	Professor Andrew McMichael
10:18:03	I think one of the problems with HIV is its variability, and its ability to mutate. And by mutation it can escape the immune response that would otherwise control it and I think this is a major feature of the infection, I think this is going on all the time in people who initially control the infection but later succumb AIDS and that's virtually everyone infected without treatment.	Professor Andrew McMichael
10:18:31	We have to design our vaccine to get the best match to the virus strain that that's in that part of the world.	Professor Andrew McMichael
10:18:39 Dr Dawit Wolday Laboratory Manager Ethio-Netherlands AIDS Research Project	We have now come to understand the type of the virus that is circulating in Ethiopia is predominantly of the sub-type C virus. Which is also common in other countries such as South Africa and also India. We want to know the molecular epidemiology of the virus in Ethiopia because future, now we are in a preparation	Dr.Darwit Wolday

	to engage in vaccine research so having this information is a very important background for		
	whatever action that we're going to take in the future.		
10:19:15	We have designed a vaccine, and it's a vaccine that's aimed at Kenya and East Africa it's that particular sub-type of the virus. The vaccines were put into the human trials, clinical trials in people at low risk to HIV infections initially and the first results are looking encouraging, so it's looking safe so far on preliminary analysis and the first analysis of the results shows that some of the people who received the vaccine are making immune responses.	Professor Andrew McMichael	
10:19:56	HIV AIDS is a big problem in this country about 700 people are infected every day. Any volunteers who come here before they are recruited into the study they meet the nurse councilors who go through various issues of concern for the study.	Dr. Walter Jaoko	
10:20:13	'This vaccine is on trial and you're looking at the safety issues. We do not know whether it protects or not	Nurse to vaccine volunteer	
10:20:21	At the same time as we do the trails we have to give them all the best advice to encourage them not to get infected. So we have to give them access to condoms. We have to give them all the information they need to avoid infection. So the trials are going to be really complicated to do and they have to be done on huge scale and they have to be done in communities where there's high level of infection so we have a lot of talking to do to those communities before we can start.	Professor Andrew McMichael	
10:20:47 Dr Walter Jaoko Clinical Project Manager Kenya AIDS Vaccine Initiative	After the volunteer has been counselled by the councillor in the other room they come here for confirmation that the information they have been given has been properly understood. The second councillor goes through what we call an assessment of understanding.	Dr.Walter Jaoko	
10:21:04	The vaccine itself is not HIV it cannot cause AIDS it cannot cause HIV infection so it's actually in that sense quite safe.	Professor Andrew McMichael	
10:21:13	'Mr Kazungu now we are ready to inject you with the vaccine on your left arm, it will hurt a little bit but it will not be painful just keep calm.'	Nurse	
10:21:25	This vaccine when given is supposed to then make the body stimulate the production of cytotoxic T-lymphocytes. This is a sub-section of the white blood cells which are meant to fight infection. And these cytotoxic T-lymphocytes are thought to be the ones that really target the HIV virus.	Dr.Walter Jaoko	
10:21:47	It is my feeling that a vaccine is the eventual answer to this pandemic. A vaccine that would protect everybody in the world.	Professor Francis Gotch	

10:21:57	A long term control of the infection without drugs is a realistic aim. Perhaps I'm being optimistic but I think it is something that might be achievable within 5-10 years.	Professor Andrew McMichael	
10:22:18 Gregg Gonsalves Director of Prevention & Treatment Advocacy Gay Men's Health crisis	Gregg Gonsalves Director of Prevention & Ireatment Advocacy Gay Men's Health the United States therefore remain levelled over the past three years and we have dramatic rise in the infection rates in infection among gay men of colour and young gay men. If you are an African American woman you are twelve times more likely to be HIV		
10:22:49 Safe Sex March - Nigeria	'If you see the awareness and compare to the past few years, everybody knows about HIV, everybody knows how it is transmitted but to bring about the change in behaviour we need to work much harder.'	Dr. Dawit Wolday Aids march	
10:23:04	'Up until two years ago you would not under any circumstances find one person who would come up publicly to say that they were living with the virus. Nobody spoke about it, you didn't hear anything on the radio or the television about HIV AIDS, you don't even hear the word, now its completely different, every single day there are a lot of messages on the radio, there's drama, there's music, there's news. You know, they're bringing in a lot of information from what is happening outside the school children are getting energized. Anti AIDS class have been set up, through out the country.'	Emelia Timpo	
10:23:43	'I have worked in Uganda for 10 years, and Uganda during that time has successfully held the pandemic of HIV at bay. This has been done primarily through education and openness about the disease. There hasn't been any stigma attached to the disease, or very little. Its very common everyday to see what we would perhaps consider quite controversial news items in the papers, on the television there's continual short cartoons, and so on and so forth to encourage safe sex.'	Professor Frances Gotch Ugandan safe sex posters, cartoons etc.	
10:24:26	In recent years Uganda, Senegal and other African nations have increased safe sex and HIV awareness to their young by being upfront and by employing innovative methods to get the message across.	Sign of HIV/AIDS Football match in Nigeria Footage of football match	
10:24:46	'Ladies and gentleman the match is getting very exciting and highly interesting. This is a program match in aid of the World AIDS Day.'	Commentator	

10:25:13	Although some countries have taken on the epidemic head first, the world's battle against HIV is still raging with millions dead and dying.	
10:25:26	'I am very optimistic that there is hope for the future, for the young. But we need to work much more harder. Yes.'	Dr. Dawit Wolday
10:25:34	'It's a massive issue and its something really we can only tackle with countries working together. We need to view this as a global problem its something that we have to deal with and we have to deal with effectively and strategically.'	Colin Dixon
10:25:50	End Credits	

AIDS – Truth or Dare Credits

With Special Terrence Higgins Trust

Thanks to Institute of Human Virology

Pasteur Institute Professor Otleno Juanita Smith Embet Admassu Sandra Nead Marty Algaze

Camera Steve Court

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Sound Matthew Phillips

William Knight

Animation & Graphics Loop 3D

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Maxine Gregory

Narrator Fiona Neeranjohn

Production Assistants Pui Han Kwok

Sophia Irvine

Production Manager Simon Frost

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Editor Matt Bolton

African Sequences

Directed by

Mike Fiddler

Director/Producer Fiona Connelly

Executive Producers Ron Blythe Jane Clarke

<u>Music Cue Sheet for AIDS – Truth or Dare</u>

Serial	Time In	Duration	Track Title	Composer	Publisher
1	10:00:20	0.47	Untitled	Sarah Jane Fogg	Useitmusic.com
2	10:01:10	2.08	Untitled	Sarah Jane Fogg	Useitmusic.com
3	10:03:42	0.38	Untitled	Sarah Jane Fogg	Useitmusic.com
4	10:04:36	1.40	Untitled	Sarah Jane Fogg	Useitmusic.com
5	10:06:18	0.34	Untitled	Sarah Jane Fogg	Useitmusic.com
6	10:06:54	0.16	Untitled	Sarah Jane Fogg	Useitmusic.com
7	10:07:11	0.13	Untitled	Sarah Jane Fogg	Useitmusic.com
8	10:07:25	0.29	Untitled	Sarah Jane Fogg	Useitmusic.com
9	10:07:55	1.02	Untitled	Sarah Jane Fogg	Useitmusic.com
10	10:08:58	0.32	Untitled	Sarah Jane Fogg	Useitmusic.com
11	10:10:44	0.19	Untitled	Sarah Jane Fogg	Useitmusic.com
12	10:11:05	1.27	Untitled	Sarah Jane Fogg	Useitmusic.com
13	10:12:34	0.41	Untitled	Sarah Jane Fogg	Useitmusic.com
14	10:14:02	0.45	Untitled	Sarah Jane Fogg	Useitmusic.com
15	10:15:36	0.13	Untitled	Sarah Jane Fogg	Useitmusic.com
16	10:15:50	4.20	Untitled	Sarah Jane Fogg	Useitmusic.com
17	10:22:11	0.46	Untitled	Sarah Jane Fogg	Useitmusic.com
18	10:24:24	0.47	Mambo Kwa Soksi/Things with	Remmy Ongala	WOMAD Music Ltd
			Socks		
19	10:25:12	1.06	Untitled	Sarah Jane Fogg	Useitmusic.com